



**Ruth Endacott**  
**Christina Jones**  
**Melissa J. Bloomer**  
**Carole Boulanger**  
**Maureen Ben Nun**  
**Katerina K. Iliopoulou**  
**Ingrid Egerod**  
**Stijn Blot**

## **The state of critical care nursing education in Europe: an international survey**

Accepted: 12 September 2015  
Published online: 1 October 2015  
© The Author(s) 2015. This article is published with open access at [Springerlink.com](http://Springerlink.com)

Dear Editor,

Critical care nursing (CCN) is an increasingly complex and growing area of specialty practice [1]. Yet access to specialty training and high quality CCN education remains a significant issue for CCN [1], creating role confusion between countries for CCN, impeding mobility across Europe and career progression for the CCN workforce [2].

To overcome similar problems in intensive care medicine (ICM), the

CoBaTrICE programme was developed. A competency-based training programme for ICM across Europe [3, 4], this programme has been adopted in 15 European countries and provides a common set of programme standards and ensures ICM is recognised as a primary specialty area for physicians [4].

The purposes of this study were to (i) map adult CCN education programmes; (ii) examine existing educational structures, processes and outcomes; and (iii) identify the barriers to advancing CCN education programmes across Europe, through the use of a descriptive survey of registered nurses in leadership roles within CCN organisations. The survey was completed via telephone, online and in hard copy in order to optimise recruitment.

Twenty-four European countries were represented, and challenges or problems for teaching or training CCN were identified in 22 of these. Formal CCN education programmes were provided in 17 (70 %) of countries (Table 1) and CCN was recognised as a specialty in 13 (54.2 %) of countries. Where education programmes were provided, eligibility requirements and programme duration varied considerably, ranging from 240 h to 24 months, with no consistency in how students

were assessed/examined, or qualification awarded. The lack of national standard for teaching and training nurses in intensive care was also a problem identified in 12 (54.5 %) countries, followed by a lack of time for trainers to devote to teaching in 14 (63.6 %) countries, a lack of protection for the title in 10 (45.5 %) countries, limited work hours/shift work impacting teaching and training in the ICU in 9 (40.9 %) countries and a lack of access to educational resources in 6 (27.3 %) countries.

Our results indicate that the first challenge is the recognition of CCN as a specialty area across Europe. The second challenge is the development of a Europe-wide specialist education programme that results in nurses with the knowledge, skills and expertise fit-for-purpose for the increasing patient acuity in critical care [5]. The third challenge is to ensure changes to the nursing workforce across Europe, such as implementing a framework that enables advanced practice roles in CCN to be recognised and regulated, and enable suitably qualified critical care nurses to work freely across country borders.

In conclusion, there are significant barriers impeding the development and advancement of CCN education across Europe. A Europe-wide approach to addressing these is

Table 1 CCN education by country

	Austria	Belgium	Cyprus	Denmark	England	Finland	Greece	Iceland	Ireland	Israel	Lithuania	Netherlands	Norway	Spain	Sweden	Switzerland	Turkey
Is CCN education regulated the same as undergraduate education?	Y	Y	N	N	N	N	Y	Y	N	Y	-	N	N	N	Y	Y	Y
Where is CCN education conducted?	MIX	S	MIX	MIX	MIX	MIX	U	U	U	MIX	-	H	Co	U	MIX	S	MIX
What qualification is awarded to nurses who undertake CCN education?	MIX	D	MIX	PGC	MIX	C	MIX	M	PGD	PGC	PBD	PGC	MIX	MIX	MIX	D	MIX
Is this qualification nationally recognised?	Y	Y	Y	Y	N	N	Y	Y	Y	Y	-	Y	Y	Y	Y	Y	Y
Training/experience required of nurse prior to CCN programme																	
Pre-registration training only	Y	Y	Y	-	Y	Y	Y	Y	-	Y	-	Y	N	Y	Y	Y	Y
Local education program in the ICU	N	N	N	-	-	N	N	N	-	-	-	N	N	N	-	N	-
Local education programme in the ICU and competitive interview	Y	N	N	Y	-	N	N	N	-	-	-	N	N	N	Y	N	-
Amount of experience prior to starting a programme of CCN?	6 m	N	2 y	6 m	-	2 y+	N	N	6 m	-	-	100 h	2 y	N	-	N	-
What is the duration of CCN education programme?	10-14 m	10 m	1 y	2 y	6 m	1 y	2 y	2 y	1 y	9 m	-	1 y	1.5 y	9-18 m	12-15 m	2 y	240 h
Student progress monitored through:																	
Informal planning at the start of the programme	Y	Y	Y	-	Y	N	Y	Y	-	-	-	Y	N	Y	N	N	N
Formal planning at start of programme using a contract	N	Y	N	Y	-	N	-	Y	-	-	-	Y	Y	N	N	Y	N
Informal assessment at work. No formal documentation	N	Y	Y	-	-	Y	-	Y	Y	-	-	N	N	N	N	N	Y
Structured assessment/formal documentation of competence (knowledge, skills and attitudes) during clinical activities	Y	Y	Y	Y	-	Y	-	Y	Y	Y	-	Y	Y	Y	Y	Y	Y
Requirements for CCN specialist training																	
Mandatory national examination	Y	Y	Y	Y	-	Y	-	Y	Y	Y	-	Y	Y	Y	Y	Y	Y

Table 1 continued

	Austria	Belgium	Cyprus	Denmark	England	Finland	Greece	Iceland	Ireland	Israel	Lithuania	Netherlands	Norway	Spain	Sweden	Switzerland	Turkey
Completion of a dissertation						Y	Y			–					Y		
None, no examination					Y				Y								Y
How is the CCN education programme certified as complete?																	
Certification by national regulatory body		Y	Y							Y	–		Y		Y		
Certification by national training body			Y				Y			–							Y
Certification by local training body	Y			Y	Y	Y				–		Y	Y	Y		Y	
No certification provided								Y	Y	–			–				
Current challenges/problems for ICN education and training																	
CCN students' limited hours or work or shift working?	N	N	Y	Y	Y	N	–	Y	–	N	–	N	N	N	Y	N	–
Access to educational resources?	N	Y	Y	N	N	N	–	N	N	N	–	N	N	Y	N	N	Y
Lack of a national standard?	Y	N	Y	N	Y	Y	Y	Y	Y	N	–	N	N	Y	Y	N	–
Lack of protection for the title?	Y	N	Y	N	Y	Y	Y	N	Y	N	–	Y	N	N	N	N	Y

C certificate, Co college, D diploma, h, hours, H hospital, m months, M masters, MIX a mix, N no, PD professional bachelor's degree, PGD postgraduate diploma, S school, y years, Y yes, U university, – no data or not applicable

imperative before CCN can advance as an area of specialty practice and meet the increasing needs of the critically ill patient.

#### Compliance with ethical standards

**Conflicts of interest** None of the authors have conflicts of interest.

**Open Access** This article is distributed under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License (<http://creativecommons.org/licenses/by-nc/4.0/>), which permits any noncommercial use, distribution, and reproduction in any medium, provided you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license, and indicate if changes were made.

#### References

- Williams G et al (2011) Critical care nursing organizations and activities: a third worldwide review. *Int Nurs Rev* 59:73–80. doi: [10.1111/j.1466-7657.2011.00926.x](https://doi.org/10.1111/j.1466-7657.2011.00926.x)
  - Dury C et al (2014) Specialist nurse in Europe: education, regulation and role. *Int Nurs Rev* 61:454–462. doi: [10.1111/inr.12123](https://doi.org/10.1111/inr.12123)
  - Barrett H, Bion J (2005) An international survey of training in adult intensive care medicine. *Int Care Med* 31:553–561. doi: [10.1007/s00134-005-2583-7](https://doi.org/10.1007/s00134-005-2583-7)
  - Bion J, Rothen H (2014) Models for intensive care training: a European perspective. *Am J Resp Crit Care Med* 189:256–262. doi: [10.1164/rccm.201311-2058CP](https://doi.org/10.1164/rccm.201311-2058CP)
  - Labeau S, Chiche J-D, Blot S (2012) Post-registration ICU nurses education: plea for a European curriculum. *Int J Nurs Stud* 49:127–128. doi: [10.1016/j.ijnurstu.2011.07.014](https://doi.org/10.1016/j.ijnurstu.2011.07.014)
- R. Endacott · M. J. Bloomer (✉)  
School of Nursing and Midwifery, Monash University, Frankston, VIC, Australia  
e-mail: [melissa.bloomer@monash.edu](mailto:melissa.bloomer@monash.edu)
- R. Endacott  
Plymouth University, Plymouth, UK
- C. Jones  
Institute of Aging and Chronic Disease, Department of Musculoskeletal Biology, University of Liverpool, Liverpool, UK
- C. Boulanger  
Royal Devon & Exeter NHS Foundation Trust, Exeter, UK
- M. Ben Nun  
Kaplan Medical Center, Yavné, Israel
- K. K. Iliopoulou  
Florence Nightingale Faculty of Nursing and Midwifery, King's College London, London, UK
- I. Egerod  
Trauma Centre, Rigshospitalet, University of Copenhagen, Copenhagen, Denmark
- S. Blot  
Department of Internal Medicine, Ghent University, Ghent, Belgium
- S. Blot  
Burns, Trauma and Critical Care Research Centre, The University of Queensland, Brisbane, Australia